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RELATIVE EFFICIENCY OF PUBLIC AND PRIVATE SECONDARY INSTITUTIONS

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INTRODUCTION

In his report to the Corporation of Harvard University for the year 1906-7, President Eliot commented at some length as to the distribution of honors both in regard to classes represented and in regard to the preparatory schools represented in the honor lists. He said: "It is true that the public schools deliver to Harvard College a large majority of the men who, during their college life, attain high standing as scholars. Out of 199 scholarship-holders for the year 1906-7, 129 were prepared in the public schools. . . . The list of these candidates entitled to Commencement Posts contained 112 names, 75 of whom come from the public schools while only 37 come from endowed and private schools." Nothing is said as to the relative number from each type of preparatory school, but statistics show that the endowed and private schools furnish the majority in the entering classes of Harvard.

In the president's report to the Yale Corporation for 1911, Dean Jones of Yale College, commenting on this same subject, says, "The general tendency of high-school students to do better work in college than those who have prepared at private schools is observable in this class (1914). The general average for high-school men in their work from October 1 to March 20 was 272.6, while the average for all the Andover, Exeter, Hill, and Hotchkiss men was 263.9 for the same period." The four schools named send 105 out of the 186 men sent from all the private schools. Further, in commenting on this same class, he says: "In December, 74 had made records which placed them on the Honor List; 27 of these were high-school men and 47 were from private schools so that 33 $\frac{1}{3}$ per cent of the high-school men and 28 per cent of the private-school men constituted the division."

From the *Harvard Alumni Bulletin* of January 3, 1912, the following is quoted:

An analysis of the lists [of scholars for the current year] shows some interesting results. Classified according to schools, of the scholarships in Group I, 37 went to men from public high schools, 12 to men from endowed and private schools, 4 to men who came from tutors, other colleges, or through some other mode of preparation. In Group II, 80 scholarships went to men from public high schools, 27 to men from endowed and private schools, 24 to men from tutors, other colleges, etc. In Group III, 78 scholarships went to men from public high schools, 18 to men from endowed and private schools, 12 to men from tutors, other colleges, etc. Here is a very striking preponderance of high standing among men who come from the public high schools, for the numbers coming from these schools and from the endowed and private schools are not far from equal: for, in the three classes which count here (leaving out the men from tutors, other colleges, etc.), about 45 per cent came from the public schools and 55 per cent from the private. Anyone who wishes to argue from these figures, however, must take into account the fact that almost all the men who are working their way through Harvard College, in whole or in part, come from the public schools, and that they have therefore a potent incentive to study which is in every way worthy, but which the other men do not have. Even with this allowance, however, these lists make clear the strong and substantial quality of the men sent to Harvard from the public high schools.

These three reports served to suggest this study. Educational conditions in New England differ radically from those in the Central West. In the East there is no notable system of state universities nor is the public high school held in such esteem as in the West. Moreover, the academy has always flourished in the East while the high school is probably best developed in the central states. The following questions therefore suggested themselves: Would a study of the records of students of the University of Chicago reveal the same results as those given in the three reports quoted? Is the public high school more efficient as a college-preparatory institution than an endowed or private school? Parents and educators have been asking these and similar questions for many years, and it was in the hope of throwing more light on this mooted point that this study was undertaken.

THE PROBLEM

The problem, then, may be stated as follows: "To determine the relative efficiency of public and private secondary institutions." Two separate lines of investigation will be taken up:

I. Through a short historical sketch of the rise and development of each type of school, the present status and the purposes of each will be shown.

II. From an examination of marks of students in the University of Chicago, conclusions will be drawn as to the relative efficiency of the two kinds of institution in preparing students for college.

Throughout this discussion the word academy will be used to designate all private educational agencies, whether endowed, under church control, or under private ownership, which are doing work of secondary grade; that is, by academy is meant any (private) "school or seminary of learning holding a rank between a college and a common school." (International Dictionary).

I. HISTORICAL SKETCH

Of the two school types which are to be compared the academy is the older, dating as far back as Franklin Academy in Pennsylvania and the Dummer Academy in Massachusetts. Not until 1780, however, through the founding of the Phillips Academy at Andover did there really exist an academy, a school type which is distinctively an American product. From that time on for almost three-quarters of a century, the academy held a dominant place in the American school system. The high-water mark was probably reached in 1850 when the figures of the national commissioner placed the number of academies as between 6,000 and 7,000. This was the zenith of its influence and popularity. Since 1860, there has been a gradual decline until, according to the commissioner's report of 1910, the number of academies was only about 1,800. This period marking the decline of the academy has been coincident with the period of rapid increase in the number of high schools. While on the decline, yet the academies contained more than one-half of all the secondary students in the country until 1880 and were not passed by the high schools in enrolment until 1887. In the last few years there has been a renewal of interest in private secondary education, manifested by the establishment of new schools, by an increase in enrolment in private schools, and especially by the activity of Catholics and Episcopalians in the founding of modern, well-equipped, and expensive church schools.

The academy came into existence as a result of nonconformity both in education and in religion. The law of 1789 in Massachusetts which freed so many of the towns from the obligation of supporting a grammar school, the rise of the district system, and the growth of the spirit of democracy and nationality caused a decline in education. Feeling the need of higher education than that provided by the state and loving learning for its own sake, many individuals founded small academies that the torch of learning might be kept burning. But the new spirit in America must find its outlet in some new way. The grammar school and college were of English origin—un-American and conservative. They were bound to tradition. In this new school tradition was honored but not revered, the new scientific spirit found a home and democracy found its own peculiar institution. Then, too, the more tolerant religious attitude which had been growing up with the multiplicity of sects demanded a school which should be religious and yet not sectarian, and in the boards of these academies this spirit found expression through the fact that men of all sects worked harmoniously together.

From the standpoint of the public the position of the academy was anomalous. At first purely a private institution and independent of public control, it later became a semi-public institution and a beneficiary of the state. The example set by Massachusetts of endowing academies with grants of public lands was largely followed by the other early states. The laws granting these lands usually contained provisions that the endowment of the schools should be increased by private gifts amounting to a specified sum, and that the schools themselves should be open to state inspection. Under these favorable influences the academies multiplied rapidly and became a great influence for good even though that influence was not conducive always to the founding of higher public schools. Martin says:

When we hear of the scanty opportunity afforded to children in the first half of the century [nineteenth], the few weeks in the little red schoolhouse under the ignorant and incompetent instructor—we must keep in mind the fact that in every town some of the children, as they reached the years of maturity, were receiving the elements of culture. A single term in the academy might serve—often did serve—to give a new turn to life; to open the windows

of the mind, often of the soul, to new and refining influences, to make the young man and the young woman more susceptible to the spirit of progress which was the spirit of the age. If we ask in brief what the academies did—they trained the leaders of two generations.

These statements were made particularly concerning the Massachusetts situation, but the history of education in all the states, with the exception of the more western, will tell the same story. Indiana and Ohio repeated the history of the early colonies, and what state law failed to do in many of the states of the Central West, was done by private effort and religious enthusiasm. Wherever a new settlement became permanent and facilities beyond the elementary school could not be provided, the academy came into being to minister to the higher wants of the community. It was the pioneer school, often pre-empting the ground even in advance of the little red schoolhouse. It is true that many of these academies had no right to the name either as then or as at present understood, and there were many variants from the general type; yet of whatever grade or type, they rendered a real service to their respective communities and prepared the way for the public schools. In the early Colonial day teachers were for the most part educated in the academy where they went for one or more terms. In this way the academies were the direct forerunners of our normal schools and nourished the sentiment necessary for their later establishment. Another signal service of the academies was that connected with the education of women. The early grammar schools were not open to girls but the academies recognized and admitted them from the first. If such schools were not coeducational, the establishing of the one school always brought about the founding of a corresponding school for girls.

But, popular and useful as these academies were, they were not the people's schools—they were privately owned and privately managed and lent themselves to the fostering of a spirit of aristocracy. All demanded tuition fees, while the elementary schools were free and publicly managed. Governor Samuel Adams voiced one of the earliest protests when he said that the academy did not produce a spirit or desire for free public schools, but on the contrary fostered a spirit in favor of private schools. Perhaps these protests

long went unheeded because the academy made no extra demands upon the community. But the demand for higher free education under public control could not be resisted always and so in 1821 Boston established a high school which was the first in the country and which was the forerunner of the splendid schools of secondary grade we have today. Many other towns followed Boston's example, but the growth of the high school was slow. Before its establishment in any town, the whole discussion of high school versus academy had to be gone through with. The late Commissioner Harris estimated that shortly before the Civil War there were only 40 high schools in the whole country. There certainly were more than this number having the name high school at this period and he probably came to his conclusion by a process of elimination in which he discarded all schools which were not doing secondary work exclusively. The growth of the high school since 1860 has been in many ways phenomenal. From the small number existing before the Civil War, there was an increase until in 1900 there were 6,005 high schools and in 1910, 10,213. In the last decade, then—the period which this study covers—the number was increased over $66\frac{2}{3}$ per cent and the number of secondary students is increasing more rapidly than our population, for while the population increased 47 per cent since 1890, the number of pupils in secondary schools increased 208 per cent.

This rapid development gives us two agencies in the secondary field of education. Naturally they are to some extent rivals, for they do the same kind of work and draw from the same patronage. And they always have been rivals. Before Boston had established her first school, when the better citizens were casting about for means to extend the field and character of free public education, the conflict began. It dates back, then, to the beginning of the nineteenth century and is bound up with the question of the state being responsible not only for elementary training, but also for secondary and higher education. Let us see how this spirit of rivalry came into being and what it really means.

When the academy first came into existence, it existed primarily for giving the student an education which was in advance of the elementary school and which was intended to prepare him for the duties of citizenship. There was not much thought at first as to

the preparation for college. Soon, however, the academies in a measure influenced the colleges and in their turn were influenced by them, so that at the time of the rise of the high school and a little later the academy fitted primarily for college and incidentally for life. The new school which came in then in response to a popular need fitted primarily for life and incidentally for college. With the growth of the colleges and especially with the growth of the state universities, the high school has been drawn farther and farther from its original purpose and consequently was becoming more and more a fitting school until recently when a halt was called. This action on the part of the public schools has forced the academy back again into giving courses calculated to prepare for life as well as for college. Both schools, therefore, are trying to perform a double task with the result that they do neither of them as well as they could do one. As the high school must always be the people's school, it must always be responsive to the popular will. In this case its course of study must ultimately point toward the practical and utilitarian rather than toward the higher education which must of necessity be for the few. Here, then, is the hope and opportunity of the academy. It must make of itself a supplementary agency, doing what the high school cannot do, and with that purpose in mind, pursue its work. Along these lines there would seem to be adequate place for both schools. Commissioner Brown sums it up as follows:

There is evidently room in our system of public education for more than one type of secondary-school organization. More than that, there is evident need of schools of different types for the satisfaction of diverse wants and the attainment of various public ends. The making of these schools represents a high development of the spirit of co-operation. The earlier academy movement was a missionary enterprise—a bringing to the people of something for the people's good. The spirit which it embodied is one of the finest things in all the world, a mainstay of our hopes for the betterment of human life. The high schools, on the other hand, appeal far less to the imagination and to sentiment. Their promoters did not set about doing good to the people, but rather undertook to work with all the people for the common good. Here, too, we touch one of the finest things in all the world, the spirit which draws all men together in a common pursuit of the public welfare.

We are therefore in a transition period. The high school has plainly usurped the distinctive purpose and position of the academy

and the latter has been forced to the wall. The weaker schools have ceased to exist and others have become high schools, while many, especially in the West, have grown into colleges. The decline in the number of academies and the phenomenal increase in the high schools is best shown by the following table, taken from the national commissioner's *Report* for 1910.

YEAR	HIGH SCHOOLS				ACADEMIES			
	No. Schools	Percent-age	No. Students	Percent-age	No. Schools	Percent-age	No. Students	Percent-age
1900...	6,005	75.22	519,251	82.41	1,978	24.78	110,797	17.59
1901...	6,318	76.95	541,730	83.25	1,892	23.05	108,221	16.65
1902...	6,292	77.42	550,611	84.02	1,835	22.58	104,690	15.98
1903...	6,800	80.04	592,213	85.33	1,690	19.96	101,847	14.67
1904...	7,230	81.82	635,808	86.01	1,606	18.18	103,407	13.99
1905...	7,576	82.32	679,702	86.38	1,627	17.68	107,207	13.62
1906...	8,031	84.01	722,692	87.66	1,529	15.99	101,755	12.34
1907...	8,804	85.99	751,081	88.55	1,434	14.01	97,110	11.45
1908...	8,960	87.16	770,456	89.37	1,320	12.84	91,651	10.63
1909...	9,317	87.75	841,273	89.98	1,301	12.25	93,656	10.02
1910...	10,213	85.15	915,061	88.63	1,781	14.85	117,400	11.37

The aggregate numbers of schools and students given in the table are much too low, as the national bureau has the names of hundreds of public high schools and academies from which reports could not be obtained.

The national bureau also gives the numbers for the North Central Division of states which includes Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas. As these are the states from which the University of Chicago draws many of its students, the following figures taken from the 1910 *Report* are quoted for them:

Enrolment for 1909-10		Increase over Year 1908-9	
High-school students.....	403,813	High-school students.....	Per cent 14.93
Academy students.....	55,038	Academy students.....	24.45

II. STATISTICAL STUDY OF GRADES

In working out the second part of the study the method of procedure was as follows: The names were taken alphabetically from the alumni list of the University of Chicago—discarding all those who had entered before January 1, 1900, and also those

who entered with more than five majors of advanced standing. With these limitations upon the choice of names it was possible to secure only 170 graduates of academies. In order to make a ratio of 1:2, the names of 340 high-school graduates were taken. A careful record was made of all honors secured by each individual as well as the average for the full college course. In addition, a record was also kept of all the failures made by each student. The method was as follows: Each student, upon entering the university, is given a record sheet in the Bureau of Records upon which is written the following data: preparatory school; date of matriculation; course pursued; grades for each subject studied; date of graduation; degree; honors received; election to Phi Beta Kappa; scholarships; and average for the four years' course. These items were tabulated with the results shown in the tables below in which the grades have the following significance: A, 91-100; B, 76-90; C, 61-75; D (conditioned), 51-60; E, failure. Minus and plus are used to make closer discriminations. The following table gives the number from each school who secured the descriptive averages:

	D	C-	C	C-	B-	B	B-	A-	A
Academy	0	13	32	36	42	19	20	8	0
High school	1	8	35	62	89	65	41	38	1

A series of graphs and tables was made to illustrate, first, the general distribution of the 510 students according to their marks (Fig. 1) and, second, the distribution of the students from each type of school (Figs. 2 and 3). For purposes of comparison the whole number was divided into five groups, I, II, III, IV, V, beginning with the highest in rank. As these arbitrary divisions did not follow the divisions between the grades, it was necessary to remove some from one grade to complement those in another so as to make the full quota for that quintile. When such a step was necessary, the number removed was always composed of those from each type of school in proportion to the number of each in the grade from which it was taken.

In each quintile division, therefore, if the schools ranked equally, the proportion should be one to two, i.e., there should be 34 academy

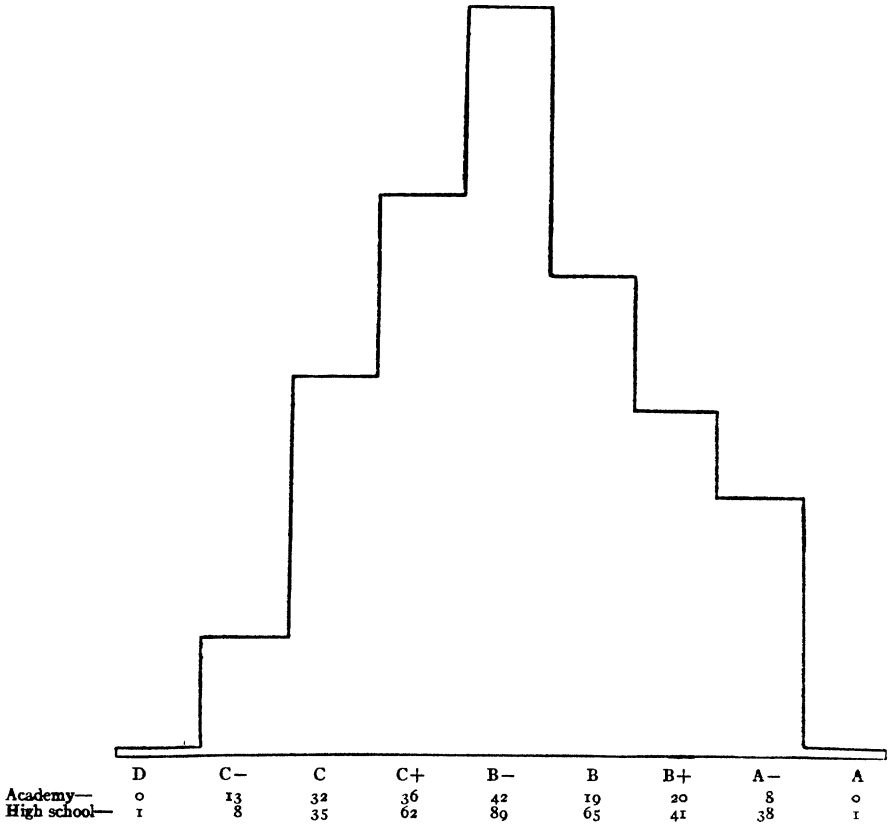


FIG. 1.—510 preparatory students. Median B—

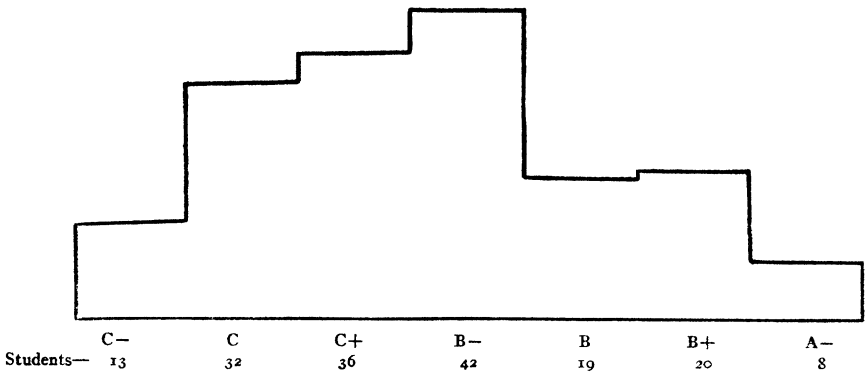


FIG. 2.—170 academy students

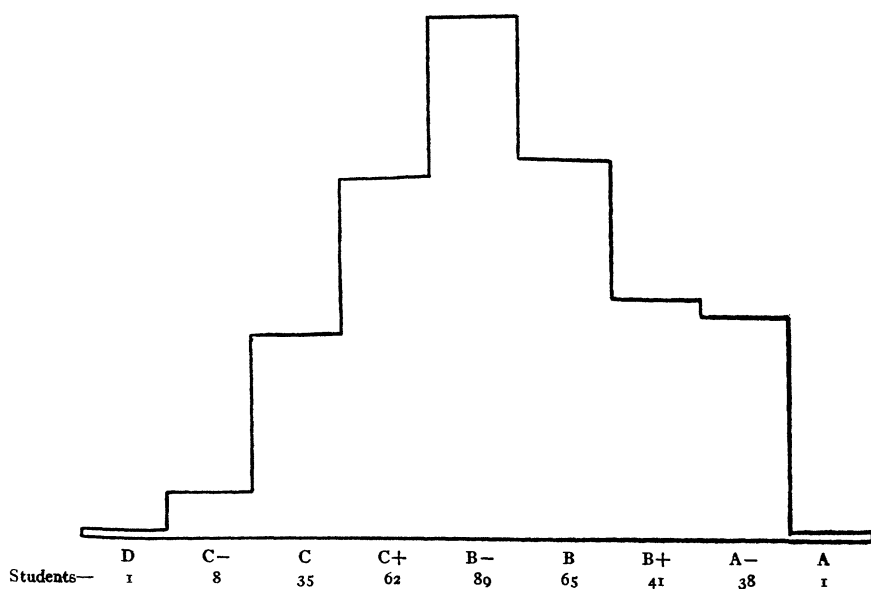


FIG. 3.—340 high-school students

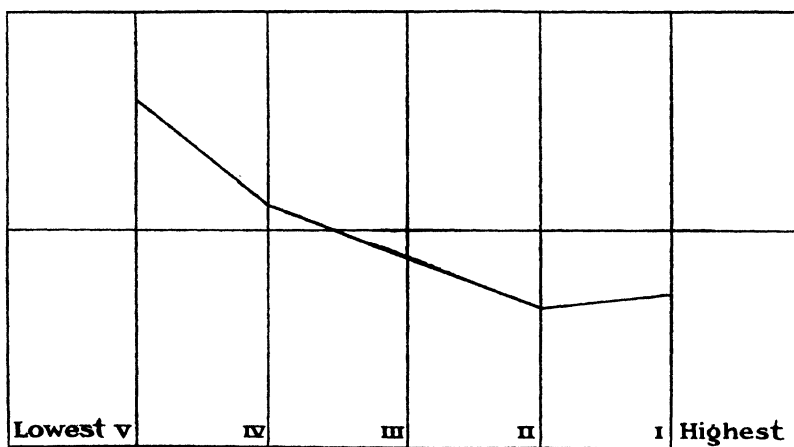


FIG. 4

When arranged in quintile division the numbers in each division are as follows:

	V	IV	III	II	I
Academy—	50	37	32	25	26
High school	52	65	70	77	76

The variations for the academy students are given in the nearest integers:

V	IV	III	II	I
+15%	+3%	-2%	-9%	-8%

Since the variations for the high school are equal with opposite signs, no chart is made for them.

students and 68 high-school students. A graph (Fig. 4) was constructed to illustrate this, in which the base lines represent the normal for each school. The broken line traces the variation from this normal.

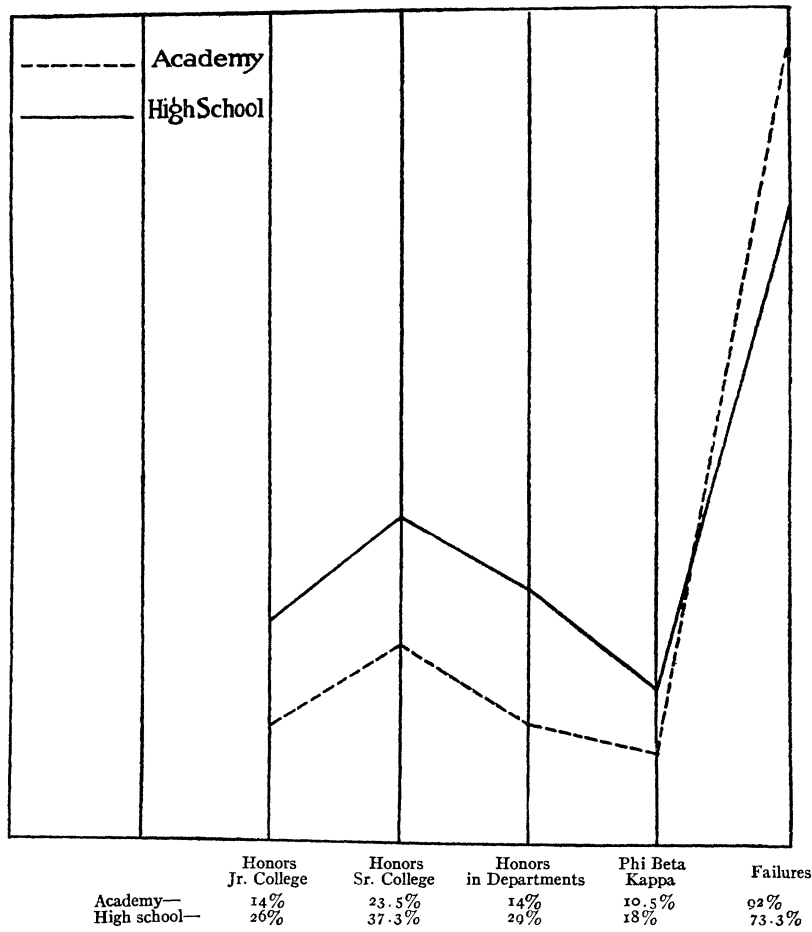


FIG. 5

Assuming any base line upon which as abscissae are laid off the respective honors, we plot the percentages of honors won by the students of each school and also the number of failures (Fig. 5).

Inspection of the graphs reveals the following: In Fig. 1, that

for the whole follows rather closely the normal distribution curve. In Fig. 2, that for the academy students is "skewed" toward the lower marks, in fact the median student falls within four of C. In Fig. 3, that for the high-school students is "skewed" toward the higher marks, the median being within 20 of being B. Fig. 4 shows that the academy students have far more than their number in the lower and far less than their proportion in the higher quintile divisions. Fig. 5 confirms the results obtained from the previous charts. It expresses the results in percentages of the total number of students in each school. To illustrate: of the 170 academy students whose records were under consideration 21, or 14 per cent, received Junior College honors, while of the 340 high-school students, 88, or 26 per cent, received Junior College honors. The same method was used in determining the other percentages.

CONCLUSIONS

From the foregoing charts and tables the conclusion is evident that as an agency preparing for college the high school is far superior to the academy. Whether this means efficiency or inefficiency on the part of the schools depends entirely upon whether school marks are a test of the efficiency of an educational agency.

In this case, however, it seems that this question is easily settled. For these 510 students, it is evidently a fair test. Judged from the fact that they went to college, for them, at least, the ability to fit for college was the service they asked of their respective preparatory schools.

The results of this study could have been made even more conclusive if it had been possible to determine the relative standings of these students in their respective graduating classes in the preparatory schools. The limits of this study did not permit such an inquiry as would have been necessary to secure such data. Neither were the entering records at the University available to throw light on the character of the preparatory scholarship of these 510 students.

Another investigation, however, could be made which might reveal some further information on the problem. Is it true that the academies send practically all of their graduates to college while

the high schools send relatively few of theirs? According to the following tables compiled from the national commissioner's reports from 1900 to 1910 inclusive, an affirmative answer can be given. The first table presents the percentages for the United States, and the second table presents the percentages for the North Central states. In each table is first given the percentage of the graduating class of that year of those who have prepared for college and next is given the percentage that these students form of the whole enrolment of pupils in that type of school for the entire country. For

YEAR	ENTIRE UNITED STATES				NORTH CENTRAL DIVISION			
	High Schools		Academies		High Schools		Academies	
	Class	Total	Class	Total	Class	Total	Class	Total
1900...	30.28	10.82	46.52	31.87	32.02	9.84	34.67	29.20
1901...	31.27	11.15	45.61	33.31	33.87	10.21	40.18	25.15
1902...	31.72	10.66	44.99	24.44	32.30	9.49	35.65	19.03
1903...	32.70	9.82	47.96	23.71	34.20	8.38	34.97	17.16
1904...	34.18	9.54	43.50	21.48	36.56	8.24	33.37	20.95
1905...	35.55	9.48	42.01	18.99	38.48	8.31	32.49	18.47
1906...	35.59	9.13	42.80	17.92	38.59	7.30	35.58	15.22
1907...	32.25	9.59	41.65	25.17	33.88	6.96	37.86	11.03
1908...	32.02	7.88	43.24	27.94	32.99	5.16	36.22	20.43
1909...	34.67	6.02	42.53	19.50	37.49	4.67	36.82	13.55
1910...	33.95	5.57	42.63	16.33	34.63	3.24	37.51	11.27
Totals	334.18	99.66	443.44	260.66	355.01	81.80	365.32	201.46
Average	33.42	9.97	44.34	26.01	35.50	8.18	36.53	20.15

example, in the years 1910, there were enrolled in the high schools of the United States, according to the national commissioner's *Report*, 915,061 students, of whom 51,020 were reported as preparing for college. It is easily seen that the last number is 5.57 per cent of the first; 5.57 accordingly appears in the second column of figures. In the graduating class of 1910 there were 111,363 students, of whom 37,811 had prepared for college. This last number is 33.95 per cent of the first and therefore appears in the first column of figures. The percentages for the academy students were similarly determined as were those for students from the North Central Division.

WORK OF THE ACADEMY

It is apparent that at present the academy cannot compete with the high school as a college-preparatory institution. The rapid decline in the number of academies makes a change of policy necessary and advisable if the academy is not to disappear. It would seem that several fields are open to the academy in which the high school would not compete:

First, the academy can provide training for students who have been retarded for various reasons and who have lost their place in the high-school classes or who cannot enter them.

Second, the academy can offer courses which the local high school cannot or does not offer. Stenography and typewriting, domestic science and manual training, music, public speaking, business courses, etc., are offered by few high schools. The call for them is loud and widespread. It often happens that the business department of the academy is the only self-supporting department. Moreover, until normal training in high schools is far more common than it is, many would-be teachers would gladly welcome the chance to get their elementary professional training in a near-by academy.

Third, the academy can continue to offer to those who desire it for their children definite training in religion and morals. The reviving interest of all denominations in church schools and in religious education indicates a real opening for this line of work.

Fourth, there will always be a demand for the boarding school with its home life and supervised activities. Some children must be sent away from home, or have no home, or their educational advantages at home are insufficient. These and many other reasons in the future as well as in the past will make a good boarding-school a public benefactor. The number of schools of this type is increasing and they are demonstrating their ability to fill a definite place in the school system of the United States.